

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 5397-102WO	FOR FURTHER ACTION	see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.
International application No. PCT/US03/15120	International filing date (<i>day/month/year</i>) 14 May 2003 (14.05.2003)	(Earliest) Priority Date (<i>day/month/year</i>) 17 May 2002 (17.05.2002)
Applicant THIN AIR CREATIONS LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the Report

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

2. ☐ Certain claims were found unsearchable (See Box I).

3. ☐ Unity of invention is lacking (See Box II).

4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☐ the text is approved as submitted by the applicant.

☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No. 1B

☒ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

☐ None of the figures

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International application No.

PCT/US03/15120

Box III TEXT OF THE ABSTRACT (Continuation of Item 5 of the first sheet)

A mechanism for animated characters capable of visually communicating facial expressions is provided. The mechanism (10) has two mesh gears per upper and lower lip (fig 1b). One gear of each pair is rotated by a single drive (20,22). Each gear has two guidance devices (60,62,56,58). Rotation of any gear to which the elastomeric material (80) is connected via a guidance device results in the stretch or ability to retract the elastomeric material. Secondary guidance devices (64,66,68,70) on a gear, when in contact with the elastomeric material, cause an inflection or deflection of the elastomeric material. Resulting stretch or bending of the elastomeric material mimics facial expressions.

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International application No.

PCT/US03/15120

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A63H 3/31, 19/20, 3/28, 13/02, 3/36, 30/00, 3/14, 11/00

US CL : 446/190, 340, 301, 297, 298, 337, 395, 175, 300, 329, 330, 353

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 446/190, 340, 301, 297, 298, 337, 395, 175, 300, 329, 330, 353

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y,P	US 6,503,123 B2 (CHUNG) 07 January 2003 (07.01.2003), See column 6 lines 43-67 and column 7 lines 1-25.	1-15
Y	US 4,805,328 A (MIRAHM) 21 February 1989 (21.02.1989), See column 4 lines 60-68 and column 5 lines 1-17.	1-15
A	US 4,294,033 A (TERZIAN) 13 October 1981 (13.10.1981), See entire document.	1-15
A	US 6,386,942 B1 (TANG) 14 May 2002 (14.05.2002), See entire document.	1-15
A	US 5,376,040 A (HICKMAN et al) 27 December 1994 (27.12.1994), See column 5 lines 28-30.	1-15
A	US 3,828,469 A (GIROUD) 13 August 1974 (13.08.1974), See abstract.	1-15
A	US 6,352,464 B1 (MADLAND et al) 05 March 2002 (05.03.2002), See abstract.	1-15

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T"

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X"

document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y"

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&"

document member of the same patent family

Date of the actual completion of the international search

04 August 2003 (04.08.2003)

Date of mailing of the international search report

26 AUG 2003

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US

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